## CLAIMS

1. (Cancelled)

2. (Cancelled)

3. (Cancelled)

4. (Cancelled)

5. (Cancelled)

6. (Cancelled)

7. (Cancelled)

8. (Cancelled)

9. (Amended) A container manufacturing system for the production of blow molded containers comprising:

a container manufacturing machine having devices operating on a preform to produce a container;

a machine control means connected to said devices for controlling said devices;

a thickness monitor for generating a thickness signal representing an average wall thickness of the container produced by said container manufacturing machine; and

a system control connected to said thickness monitor and being responsive to said thickness signal for generating a control signal, said system control being connected to said machine control means, said control signal being used by said machine control means for adjusting operation of said devices based upon said average wall thickness, wherein said system control responds to feedback signals generated by said devices by adjusting said operation of said devices.

10. (Previously Presented) The system according to claim 9 wherein said devices include at least one of a pneumatic device, a heater and a mechanical device.

11. (Previously Presented) The system according to claim 9 wherein said system control includes a display means for visually displaying data related to said thickness signal.

12. (Cancelled)

13. (Previously Presented) The system according to claim 9 wherein said system control responds to feedback signals generated by at least one of a preform temperature sensor and an ambient temperature sensor by adjusting said operation of said devices.

14. (Amended) A method of controlling the production of blow molded containers including the steps of:

a) producing a container in a container manufacturing machine;

b) transporting the container from the container manufacturing machine;

c) sensing a combined wall thickness at a location on the container and generating a signal representing an average wall thickness at the location on the container; and

d) adjusting operation of the container manufacturing machine with a system control in response to the signal to effect the production of subsequent containers, wherein said steps a) through c) are performed for a predetermined number of contains before performing step d).

15. (Cancelled)

16. (Previously Presented) The method according to claim 14 including calculating a trend based upon the average wall thickness of a predetermined number of the containers.

17. (Previously Presented) The method according to claim 16 including displaying the trend.

18. (Previously Presented) The method according to claim 14 including performing said step d) in response to feedback signals from at least one of a pneumatic device, a heater, a mechanical device, a preform temperature sensor and an ambient air temperature sensor.

19. (New) The system according to claim 9 including means for generating a pneumatic signal representing air pressure applied to the preform by said container manufacturing machine, said system control being responsive to said pneumatic signal for adjusting operation of said container manufacturing machine.

20. (New) The system according to claim 9 including means for generating a heater signal representing heat applied to the preform by said container manufacturing machine, said system control being responsive to said heater signal for adjusting operation of said container manufacturing machine.

21. (New) The system according to claim 9 including means for generating a mechanical signal representing a mechanical force applied to the preform by said container manufacturing machine, said system control being responsive to said mechanical signal for adjusting operation of said container manufacturing machine.

22. (New) The inspection and control system according to claim 1 including means for generating a temperature signal representing a temperature of the preform, said system control being responsive to said temperature signal for adjusting operation of said container manufacturing machine.

23. (New) The system according to claim 9 including means for generating an ambient temperature signal representing a temperature of air around said container manufacturing machine, said system control being responsive to said temperature signal for adjusting operation of said container manufacturing machine.

24. (New) The system according to claim 9 wherein said system control includes a display means for visually displaying data related to said thickness signal.

25. (New) The system according to claim 9 wherein said system control generates said control signal based upon an average of a predetermined number of said thickness signals each representing an average wall thickness of an associated one of a plurality of containers produced by said container manufacturing system.